SEQUENCE LISTING

<110> Junghans, Claas

Wittig, Burghardt

König Merediz, Sven

Schroff, Matthias

<120> Covalently Closed Nucleic Acid Molecules for Immunostimulation

<130> NHL-NP-37

<140> US 00/000,000

<141> 2002-01-27

<150> PCT/DE00/00565

<151> 2000-02-24

<150> DE19935756

<151> 1999-07-27

<160> 15

<170> PatentIn version 3.1

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<222>  (1)..(18)

<223>  Base sequence


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<222>  (1)..(48)

<223>  Mini sequence: circular single-stranded with stem loop structure
       (dumbbell), all phosphodiester


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<222> (1)..(60)

<223> AT-2L sequence: circular single-stranded with stem loop structure
       (dumbbell), all phosphodiester

<400> 3
accttccttg tactaacgtt gcctcaagga aggttgatct tcataacgtt gcctagatca   60

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<222> (1)..(116)

<223> ISS30 sequence: circular single-stranded with stem loop structure
       (dumbbell), all phosphodiester

<400> 4
cctaggggtt accaccttca ttggaaaacg ttcttcgggg cgttcttagg tggtaacccc   60

tagggttac caccttcatt ggaaaacgtt cttcggggcg ttcttaggtg gtaacc   116

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<222> (1)..(58)

<223> 5'-phosphorylated oligodeoxyribonucleotide

<400> 5
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<222> (1)..(114)

<223> ISS30-ds sequence: circular single-stranded with stem loop struct
      ure (dumbbell), all phosphodiester

<400> 6
tcttcggggc gttctttact aggtcctctc caggttacca cctaagaacg ccccgaagaa   60

cgttttccaa tgatactagg tcctctccag gttaccacct tcattggaaa acgt   114

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<212> DNA

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<222> (1)..(68)

<223> ISS30-sl sequence: circular single-stranded with stem loop struct
ure (dumbbell), all phosphodiester

<400> 7
tcttcggggc gttctttttt aagaacgccc cgaagaacgt tttccaatga tttttcattg   60

gaaaacgt   68

<210> 8

<211> 82

<212> DNA

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<222> (1)..(82)

<223> ISS13 sequence: circular single-stranded with stem loop structure
(dumbbell), all phosphodiester

<400> 8
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cgttcttcgg gaggtggtaa cc   82

<210> 9

<211> 60

<212> DNA

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       (dumbbell), all phosphodiester

<400> 9
cttccttgta ctaaccttgc ctcaaggaag gttgatcttc ataacgttgc ctagatcaac   60

<210> 10

<211> 30

<212> DNA

<213> Artificial Sequence

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<222> (1)..(30)

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<223> ISS30-IPS sequence: linear single-stranded sequence, first five a
nd last three phosphoester linkages by thioate

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tcattggaaa acgttcttcg gggcgttctt   30

<210> 11

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<212> DNA

<213> Artificial Sequence

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<223> ISS30-I sequence: linear single-stranded sequence, all phosphodie
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<400> 11
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<210> 12

<211> 30

<212> DNA

<213> Artificial Sequence

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<223> Synthetic Construct

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<222> (1)..(30)

<223> AT-PS sequence: linear single-stranded sequence, first five and last three phosphoester linkages by thioate

<400> 12
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<210> 13

<211> 116

<212> DNA

<213> Artificial Sequence

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<223> Synthetic Construct

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<221> misc_feature

<222> (1)..(116)

<223> NoSS30 sequence: circular single-stranded with stem loop structure (dumbbell), all phosphodiester

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tagggttac caccttcatt ggaaaacctt cttaggggtg ttcttaggtg gtaacc   116

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<222> (1)..(35)

<223> Deoxyribonucleotide WOT-11-P

<400> 14
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<210> 15

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<212> DNA

<213> Artificial Sequence

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<222> (1)..(33)

<223> Deoxyribonucleotide WOT-10-P

<400> 15
gttcttcggg gcgttctttt ttaagaacgc ccc   33